

FIG. 1

200
✓
LAN 210

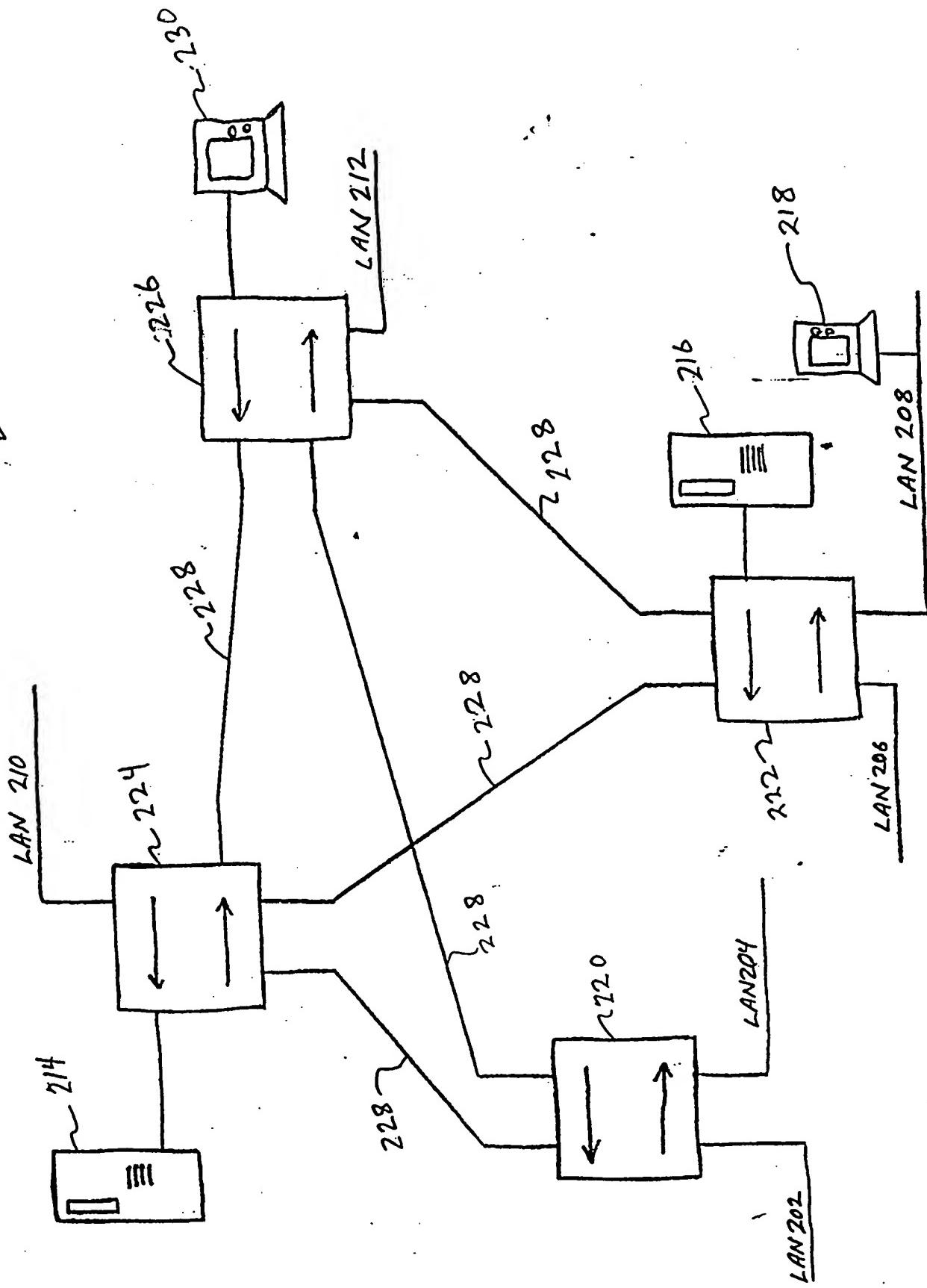
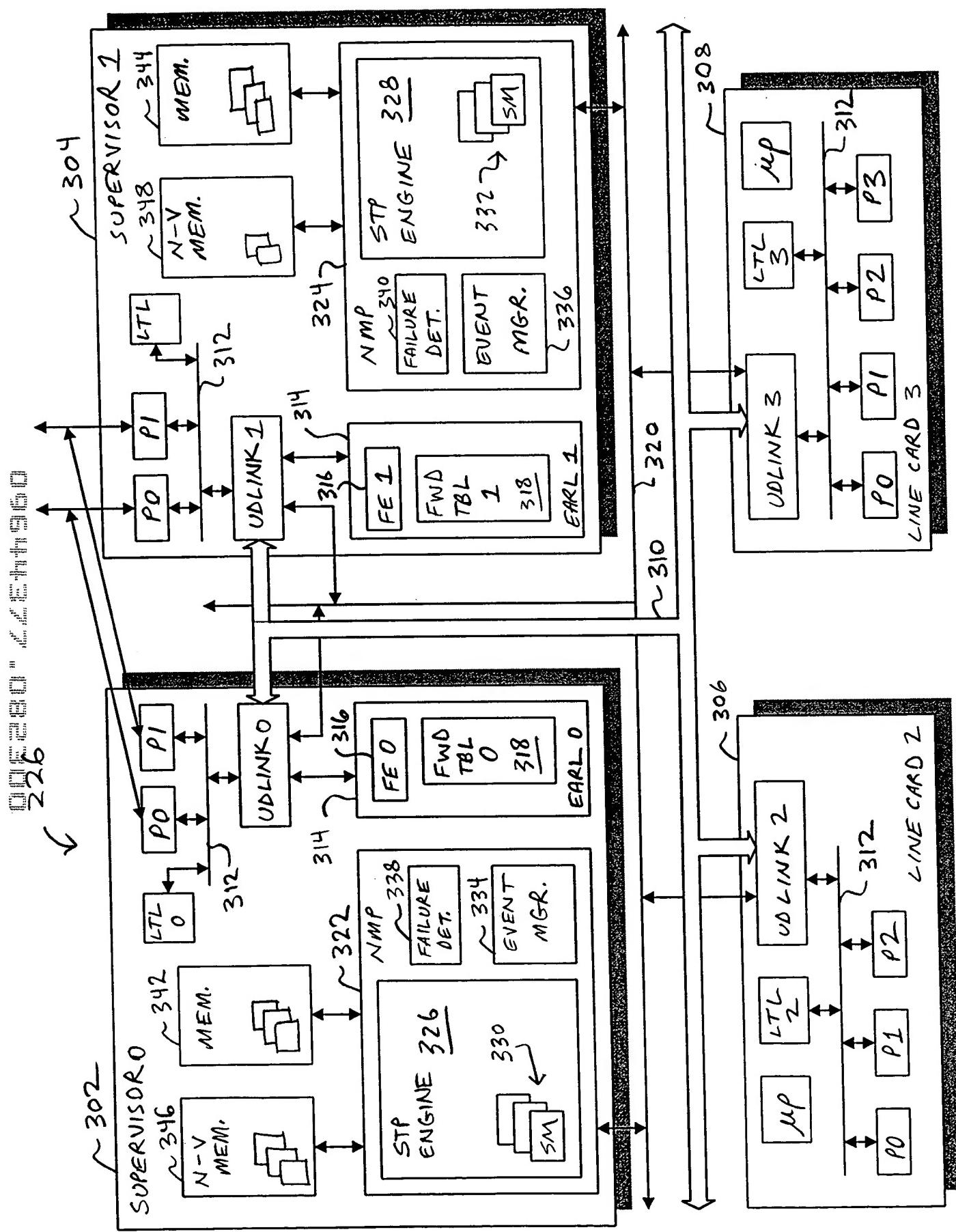


FIG. 2

FIG. 3



UPON START-UP OF SWITCH, SPANNING TREE PROTOCOL ENGINES INITIALIZE SPANNING TREE DATA STRUCTURES

SUPERVISOR CARDS DESIGNATE ONE OF THEM TO BE THE ACTIVE SUPERVISOR, AND DESIGNATE THE REMAINING SUPERVISOR CARD(S) TO BE STANDBY SUPERVISORS

SYNCHRONIZE THE SPANNING TREE PARAMETERS AT THE STANDBY SUPERVISOR(S) WITH THE CORRESPONDING PARAMETERS AT THE ACTIVE SUPERVISOR

SPANNING TREE PROTOCOL ENGINE AT THE ACTIVE SUPERVISOR RUNS THE SPANNING TREE PROTOCOL, LOADING THE SPANNING TREE DATA STRUCTURES WITH COMPUTED VALUES

SPANNING TREE PROTOCOL ENGINE AT THE ACTIVE SUPERVISOR NOTIFIES THE STANDBY SUPERVISOR(S) OF CHANGES AFFECTING THE SPANNING TREE TOPOLOGY

FIG. 4

500

<u>BRIDGE DATA STRUCTURE</u>	
Root Bridge Identifier (ID)	~502
Root Path Cost	~504
Root Port	~506
Maximum Age Time	~508
Hello Time	~510
Forward Delay Time	~512
Bridge Identifier (ID)	~514
Bridge Maximum Age Time	~516
Bridge Hello Time	~518
Bridge Forward Delay Time	~520
Topology Change Detected Flag	~522
Topology Change Flag	~524
Topology Change Time	~526
Spanning Tree Statistics	~528
Port Database Array Pointer	~530

FIG. 5

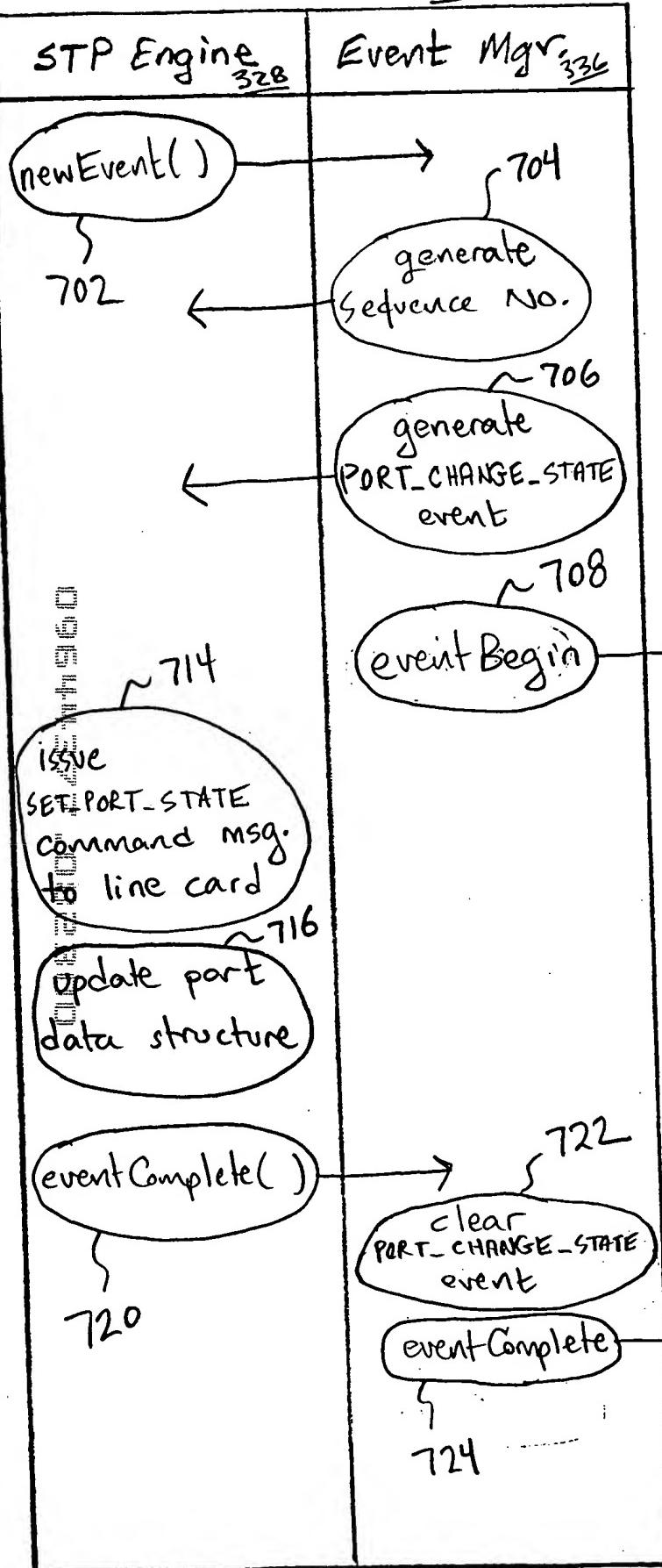
600

<u>PORT DATA STRUCTURE</u>	
Port Identifier (ID)	~602
Port State	~604
Designated Bridge Identifier (ID)	~606
Designated Bridge Port Identifier (ID)	~608
Designated Bridge Root Port Path Cost	~610
Designated Root Identifier (ID)	~612
Topology Change Acknowledgment	~614
Configuration BPDU	~616
TCN BPDU	~618
Port Next State	~620
Configuration BPDU in Process	~622
High Availability Recovery Pending	~624
Port Statistics	~626
Port Data Structure Pointer	~628

FIG. 6

ACTIVE

301



STANDBY

302

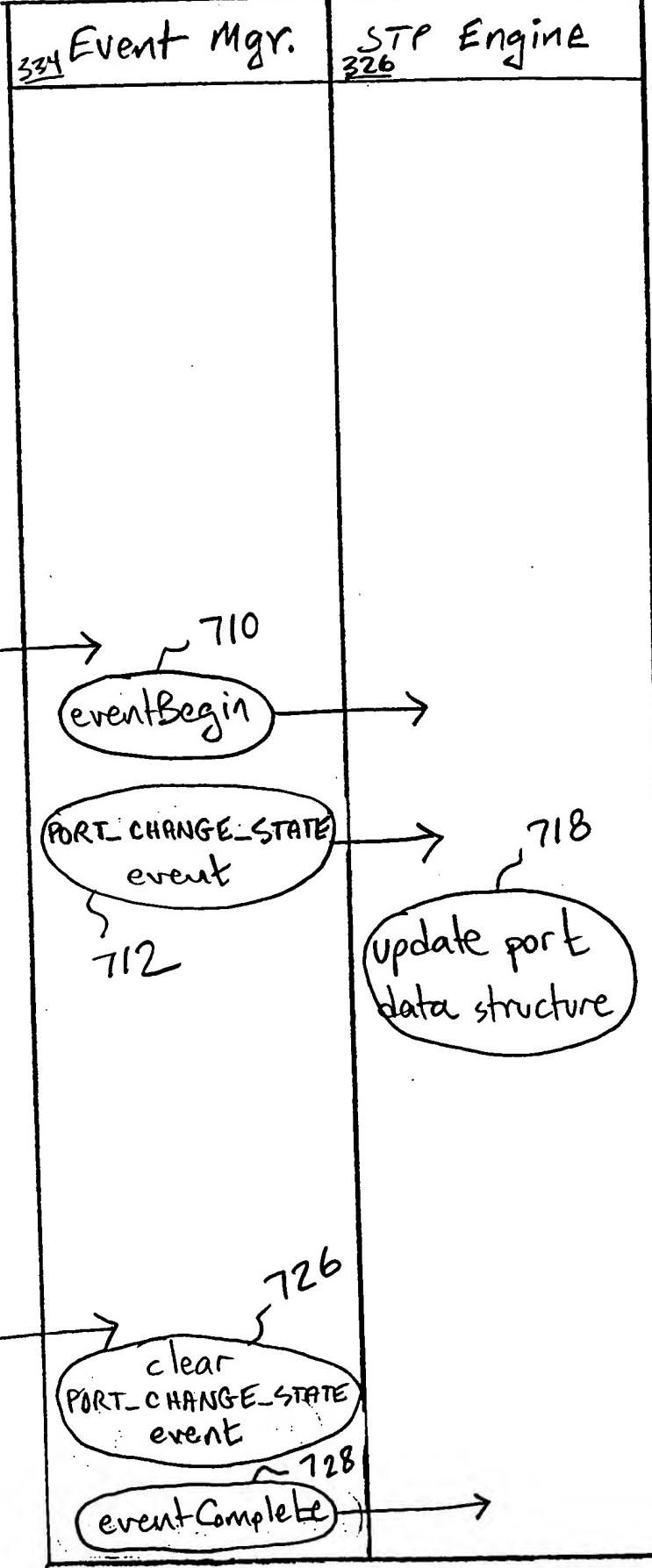


FIG. 7

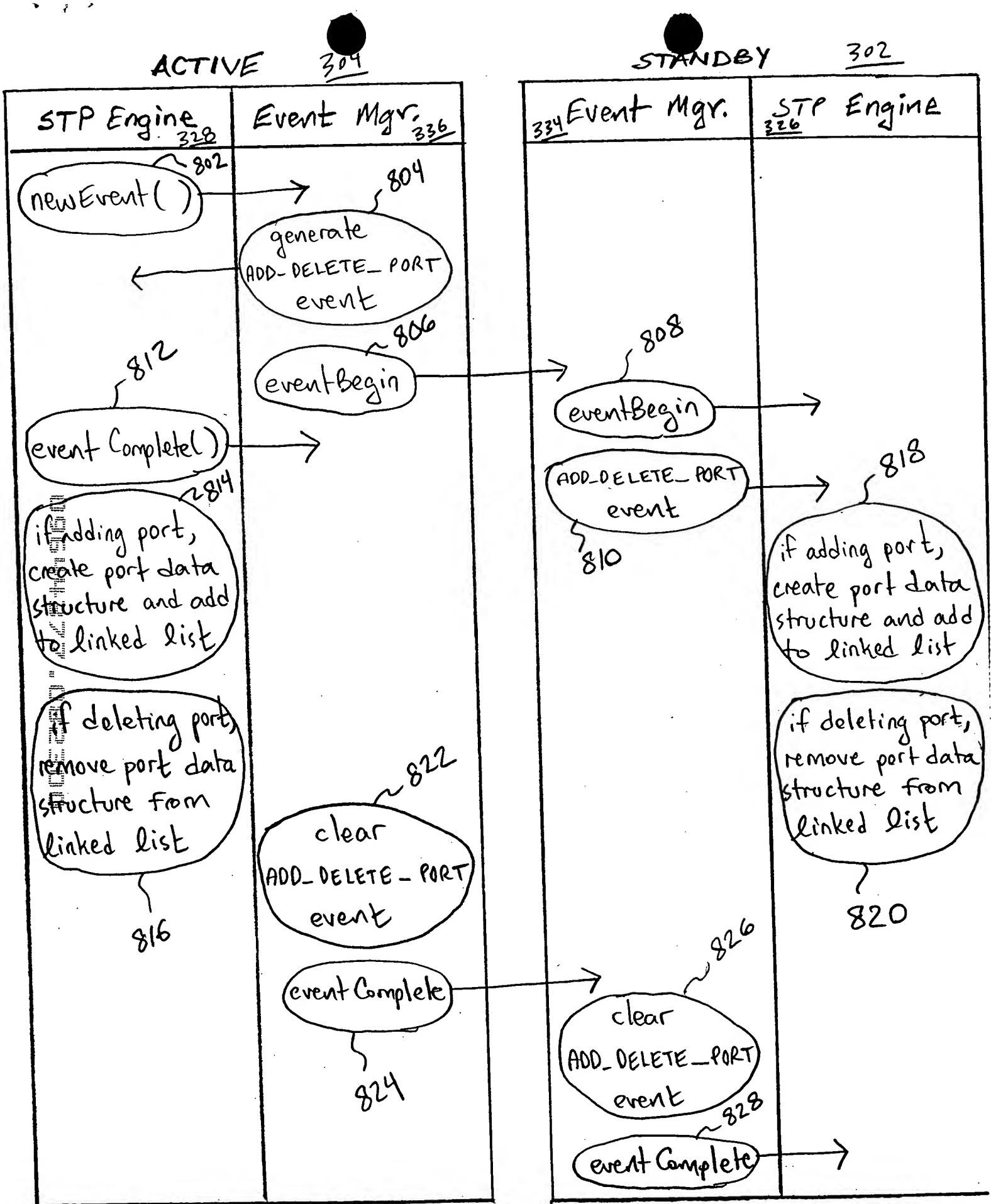


FIG. 8

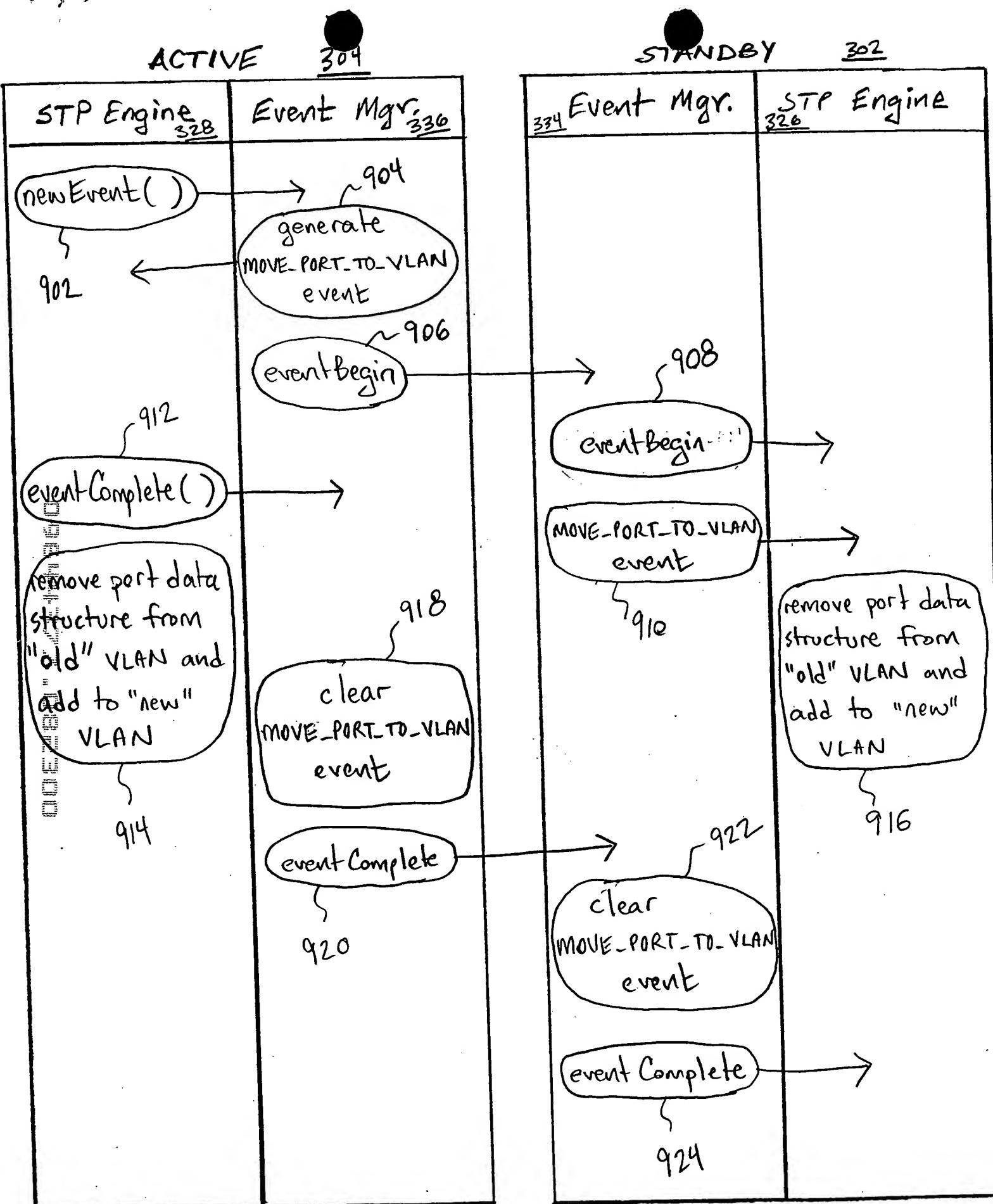


FIG. 9

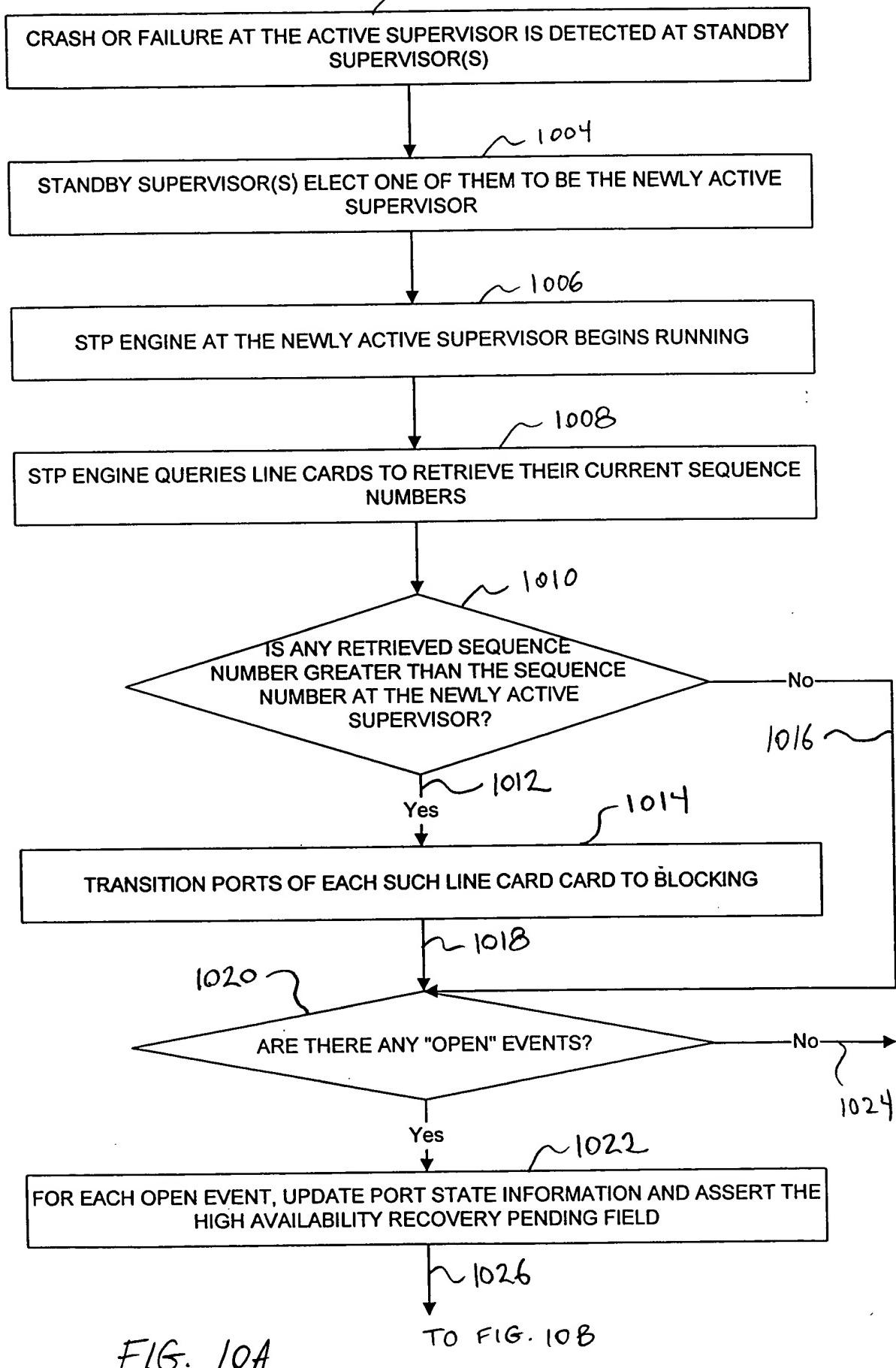


FIG. 10A

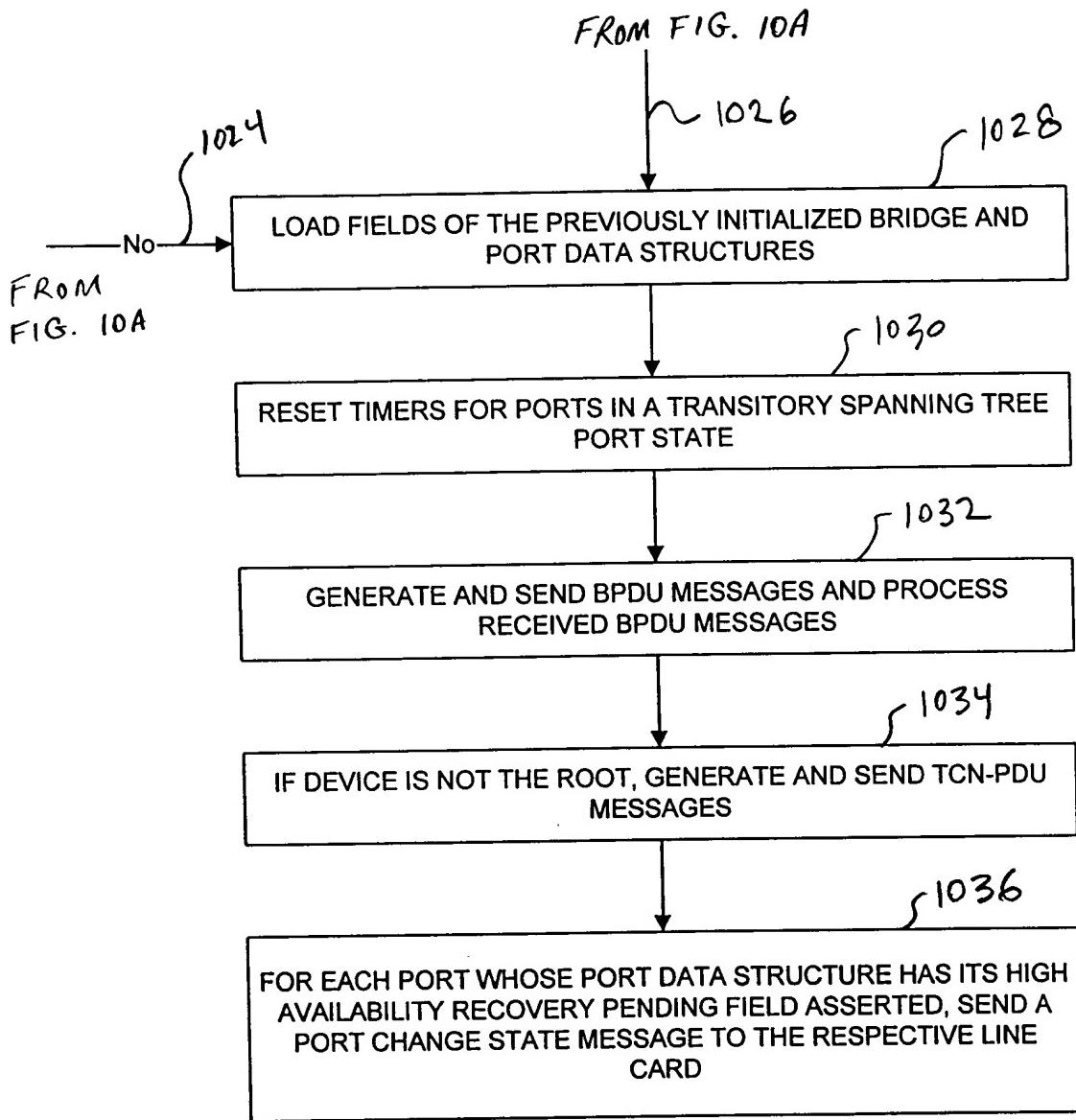


FIG. 10B

1100

The diagram illustrates a Port Database Array with the following structure:

Module	Ports			
	P0	P1	P2	P3
Supervisor 0				
Supervisor 1				<u>1102</u>
Line Card 2		<u>1102</u>		
Line Card 3			<u>1102</u>	

Annotations with arrows point to specific entries:

- An arrow labeled "1104" points to the empty cell under P0 for Supervisor 0.
- An arrow labeled "1106a" points to the empty cell under P1 for Supervisor 1.
- An arrow labeled "1106b" points to the empty cell under P2 for Line Card 2.
- An arrow labeled "1106c" points to the empty cell under P3 for Line Card 3.
- An arrow labeled "1106d" points to the empty cell under P3 for Line Card 3.

FIG. 11